

Remarks

Claims 1-8 are pending in the application. Claims 1-8 are rejected. Claims 1, 3 and 8 are amended. The specification is objected to by the Examiner. The drawings are objected to by the Examiner. All rejections and objections are respectfully traversed.

Claims 1, 3 and 8 are amended to more clearly indicate the scope of the invention and to advance the application to allowance. No new subject matter is added.

The Examiner makes numerous objections to the specification and drawings. The specification and Figures 3, 9, 11A, 11B, 16 and 17 of the drawings have been amended to overcome the improper labeling and cross-referencing objections.

Regarding the objection under 37 C.F.R. 1.83(a), the Examiner states:

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “**method** for reduced spatial resolution transcoding of a compressed bitstream of a ...” must be shown or the feature(s) canceled from the claim(s).

The Examiner highlights the word “**method**” in boldface type. Also, the Examiner states:

Method is understood as a flow chart that describes a process.

Applicants assume that this objection is related to the objections to the specification that follow in the Office Action and further indicates that the

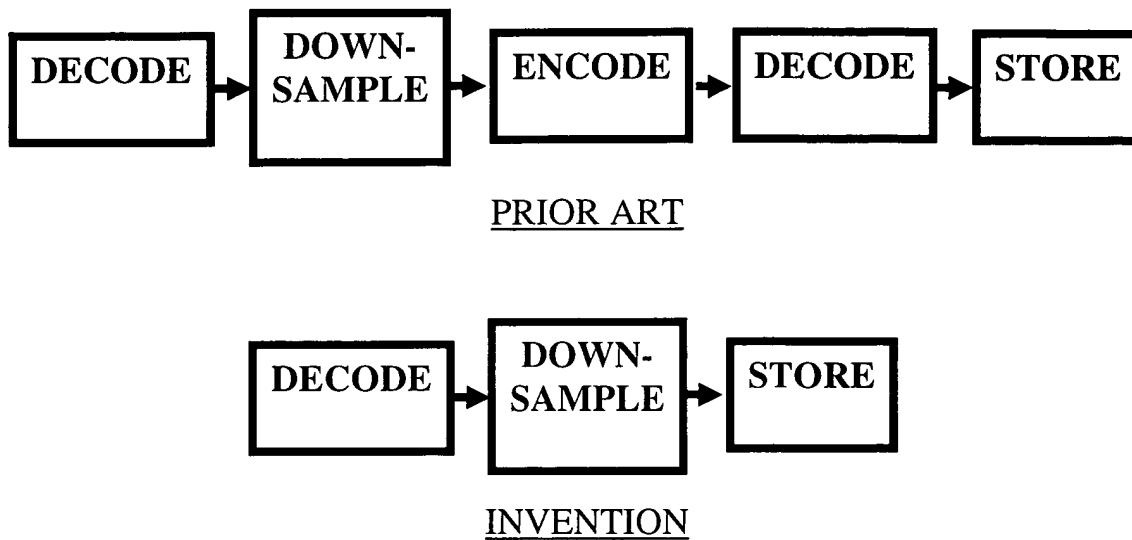
Examiner believes that the drawings are depicting apparatus rather than steps in a method. This position is incorrect. All elements of the claimed method are present in the figures. The drawings include flow diagrams of methods 200, 300, 400 and 500 (not apparatus as the Examiner suggests) in Figures 2, 3, 4 and 5, respectively. It is respectfully requested that the Examiner withdraw his objection to the drawings under 37 C.F.R. 1.83(a) and objections a), b), d) and e) to the specification.

Claims 1-8 are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant Admitted Prior Art (AAPA).

The invention is a method for reduced spatial resolution transcoding of a compressed bitstream of a sequence of frames of a video signal. Frames of the compressed bitstream are decoded and the decoded frames are stored in a first frame buffer. The decoded frames are down-sampled to a reduced resolution. The reduced resolution frames are stored in a second frame buffer and the reduced resolution frames are partially encoded to produce a reduced resolution compressed bitstream of the video.

Regarding claims 1-7, claimed is storing reduced resolution frames in a second frame buffer. The Examiner cites prior art depicted in Figure 4 as teaching the claimed storing. Figure 4 shows a prior art transcoder that stores a reduced resolution reference signal y_n^2 obtained by inverse quantization and inverse discrete cosine transformation of quantized signal c_{out} . In contrast, the current invention stores reduced resolution frames obtained

directly from down-sampling and without the reconstruction as shown in Figure 4. The following diagram clarifies this point.



The prior art in Figure 4 cannot anticipate the claimed storing.

Regarding claim 8, a similar analysis as above applies.

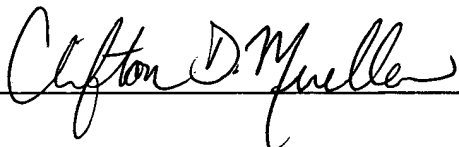
In order to move the application toward allowance, claims 1, 3 and 8 have been amended to more clearly indicate the scope of the invention. No new subject matter is added.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (U.S. Patent Application Publication No. 2002/0126752) in view of Applicant Admitted Prior Art (AAPA).

Kim describes a video transcoding apparatus with a bit rate control unit 600 that calculates an encoded bit “amount” and varies a step size of a quantizing unit according to the result of the calculation, see page 5, paragraph [0086]. In essence, Kim discloses a transcoder that encodes at a variable bit rate. Nowhere does Kim store, without reconstruction, reduced resolution frames obtained directly from down-sampling and perform motion compensation with reduced resolution motion vectors of the stored reduced resolution frames. As explained above, the prior art as shown in Figure 4 does not cure this defect. Thus, Kim and the prior art as shown in Figure 4 cannot make the invention obvious.

It is believed that this application is now in condition for allowance. A notice to this effect is respectfully requested. Should further questions arise concerning this application, the Examiner is invited to call Applicant’s agent at the number listed below. Please charge any shortage in fees due in connection with the filing of this paper to Deposit Account 50-0749.

Respectfully submitted,
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